

4.4 WETLANDS AND WATERS OF THE UNITED STATES

This section includes discussions of impacts and mitigation measures related to wetlands and Waters of the United States in the study area. This section will focus primarily on the identified Preferred Alternative, the (Enhanced) Reduced Build Alternative.

As discussed in Section 2.2.1, the Reduced Build Alternative, as presented in the DEIR/EIS, has been modified and renamed the (Enhanced) Reduced Build Alternative. The (Enhanced) Reduced Build Alternative includes all of the Reduced Build Alternative's project features, as presented in the August 2001 DEIR/EIS, and two project components from the Full Build Alternative: one is the freeway mainline section of the SR-22/SR-55 direct HOV connector from the Full Build Alternative, without the freeway to freeway connecting structure, and two: an auxiliary lane from Glassell Street to Tustin Avenue in the eastbound direction. The extended portion of the Mainline is approximately 1.2 miles at the eastern terminus of the project limits, which was analyzed as part of the Full Build Alternative. The added feature of the (Enhanced) Reduced Build alternative involves an extension of the eastern terminus improvements in both directions from Glassell Street to approximately SR-55, resulting in the modification of the Reduced Build Alternative. The extension of the HOV mainline at the eastern terminus prompted additional analysis (i.e., calculation of impacts) to address potential impacts to Santiago Creek and Santa Ana River. The refinement to the right-of-way and the modification to the Pearce Street pedestrian overcrossing would have no effects to wetlands and waters of the United States.

4.4.1 WATERS OF THE UNITED STATES

A. PREFERRED ALTERNATIVE/(ENHANCED) REDUCED BUILD ALTERNATIVE

The (Enhanced) Reduced Build Alternative includes overcrossings of, or is adjacent to, a number of drainages that are Waters of the United States. The majority of these drainages are concrete-lined and therefore do not contain sensitive biological resources. Table 4.4-1 shows the potential area of impact for each of these drainages.

Section 404 permits will be required for the crossings identified in Table 4.4-1 below, but coverage under existing Nationwide Permit 14, Linear Transportation Crossings, is anticipated because permanent impacts would not exceed the thresholds for this nationwide permit. The Permit allows construction of public linear transportation projects in non-tidal waters, excluding non-tidal wetlands adjacent to tidal waters, provided the discharge does not cause the loss of greater than 1/2 acre of waters of the United States.

Projects that include physical modification of a "Water of the United States" must generally comply with Section 404 of the Clean Water Act under the jurisdiction of the Corps. The objective of the Clean Water Act is to restore and maintain the chemical, physical and biological integrity of the nation's waters. Section 404 regulates activities that result in discharge of dredged, fill or excavated material into "Waters of the United States" (33 CFR 328.3, see Section 3.4). Although the study area supports no wetlands that would be directly affected by the (Enhanced) Reduced Build Alternative, this alternative would result in modification of some soft-bottom, channelized drainages. Therefore, the project will need to comply with Section 404 of the Clean Water Act to address impacts on "Waters of the United States." Section 404 permits will be required for the crossings identified below, but coverage under existing Nationwide Permit 14, Linear Transportation Crossings, is anticipated because permanent impacts would not exceed the thresholds for this nationwide permit (0.2 hectare or 0.5 acre), as shown in Table 4.4-1.

Section 401 of the federal Clean Water Act requires that for each permit or license issued by a federal agency, the state is to provide certification that water quality standards and the use of the water will not be impaired by issuance of the federal permit. The state may grant, grant with conditions, waive, or deny certification. Most certifications are issued for a Section 404 permit, so an application for a Section 401 certification is generally filed concurrently with the Section 404 permit application (or request for coverage under a nationwide permit). The state's Regional

Water Quality Control Boards (RWQCBs) issue the 401 certifications. The applicable RWQCB may approve the certification application, passively waive certification by taking no action (generally within 60 days, although extensions are possible), or deny the certification if it is unable to find that the project will comply with water quality standards or other applicable requirements. If the 401 certification is denied, the USACOE cannot issue a Section 404 permit or cover the project under an existing nationwide permit. Because the Reduced Build Alternative would require coverage under existing Nationwide Permit 14, Linear Transportation Crossings, a Section 401 certification would be required.

B. OTHER ALTERNATIVES

1. NO BUILD ALTERNATIVE

The No Build Alternative would not include construction other than that which is addressed in other environmental documents; therefore, no additional impacts to waters of the United States would occur.

2. TSM/EXPANDED BUS SERVICE ALTERNATIVE

The TSM/Expanded Bus Service Alternative would not include any major capital improvements to SR-22. No impacts to waters of the United States would occur.

3. FULL BUILD ALTERNATIVE

The Full Build Alternative includes overcrossings of, or is adjacent to, a number of drainages that are Waters of the United States. The majority of these drainages are concrete-lined and therefore do not contain sensitive biological resources.

See the Preferred Alternative/(Enhanced) Reduced Build discussions above regarding compliance with Sections 401 and 404 Clean Water Act. Although the study area supports no wetlands that would be directly affected by the Full Build Alternative, this alternative would result in modifications of some soft-bottom channelized drainage areas. The Full Build Alternative will need to comply with Section 404 of the Clean Water Act to address impacts on "Waters of the United States." Section 404 permits will be required for the crossings but coverage under existing Nationwide Permit 14, Linear Transportation Crossings, is anticipated because permanent impacts would not exceed the thresholds for this nationwide permit (0.2 hectare or 0.5 acre). Since the Full Build Alternative would require coverage under existing Nationwide Permit 14, Linear Transportation Crossings, a Section 401 certification would be required.

**Table 4.4-1
POTENTIAL IMPACTS TO WATERS OF THE UNITED STATES
(ENHANCED) REDUCED BUILD ALTERNATIVE**

Water of the U.S.	Impact Description (RCB = reinforced concrete box)	Permanent Impacts		Temporary Impacts	
		Square Meters (Sq.Ft.)	Hectares (Acres)	Square Meters (Sq.Ft.)	Hectares (Acres)
I-405/I-605 Connector Segment					
Los Alamitos Channel	No impact.	---	---	---	---
Katella Storm Channel	No impact.	---	---	---	---
Kempton Storm Channel	No impact.	---	---	---	---
Montecito Storm Channel	Extend RCB into current open, soft lined channel; no habitat.	36 (390)	0.0036 (0.0090)	85 (910)	0.0085 (0.0209)
Bixby Storm Channel	Extend RCB into current open, concrete-lined channel; no habitat.	1,400 (15,000)	0.1394 (0.3444)	1,500 (16,000)	0.1486 (0.3673)
I-405/SR-22 Connector Segment					
Federal Storm Channel	No impact.	---	---	---	---
Bolsa Chica Channel	No impact.	---	---	---	---
SR-22 Mainline Segment					
Anaheim-Barber City Channel	No impact.	---	---	---	---
Bolsa Grande Storm Channel	No impact.	---	---	---	---
Westminster Channel	No impact.	---	---	---	---
Taft Storm Drain	No impact.	---	---	---	---
Newhope Channel	No impact.	---	---	---	---
East Garden Grove-Wintersburg Channel	Extend RCB into existing open, concrete-lined channel; no habitat.	80 (900)	0.0084 (0.0207)	195 (2,100)	0.0195 (0.0482)
Santa Ana River	Lengthen 5 existing piers and construct 4 new piers. New connector SB I-5/SR-57 connector to WB SR-22	136 (1463)	0.014 (0.035)	16,200 (174,37)	1.62 (4.0)
Santiago Creek Bridge Widening*	Lengthen 1 existing pier; relocate/construct new eastbound and westbound ramps	19 (204)	0.0019 (0.0047)	8,290 (89,233)	0.829 (2.05)

Note: Lewis Channel, an open concrete-lined channel in Garden Grove, is not a "water of the United States," based on USACOE criteria (Vega, June 1, 2000). This channel, which is adjacent and parallel to SR-22, would be enclosed in a reinforced concrete box culvert located in the widened SR-22 right-of-way. The area of permanent impacts would be 5,160 square meters (55,500 square feet) or 0.5156 hectare (1.274 acres), but because the channel is non-jurisdictional, a Section 404 permit would not be required. No habitat is present within this concrete-lined channel.

*Information added to reflect update to the Reduced Build Alternative. All Santiago Creek temporary impacts are combined at the bridge widening impact.

Thresholds of Significance for CEQA:

- Substantial erosion and runoff that may affect waters of the United States

CEQA Findings:

A. PREFERRED ALTERNATIVE/(ENHANCED) REDUCED BUILD ALTERNATIVE

The (Enhanced) Reduced Build Alternative includes overcrossings of, or is adjacent to, a number of drainages that are Waters of the United States. The majority of these drainages are concrete-lined and therefore do not contain sensitive biological resources. However, there will be continued coordination with the proper resources agencies where there are potential impacts to

Waters of the United States. Table 4.4-1 shows potential areas of impact for each of these drainages.

The project will need to comply with Section 404 of the Clean Water Act to address impacts on "Waters of the United States." Coverage under existing Nationwide Permit 14, Linear Transportation Crossings, is anticipated because permanent impacts would not exceed the thresholds for this nationwide permit (0.2 hectare or 0.5 acre), thus resulting in less than significant impact.

B. OTHER ALTERNATIVES

1. NO BUILD ALTERNATIVE

The No Build Alternative would have no impacts on waters of the United States.

2. TSM/EXPANDED BUS SERVICE ALTERNATIVE

The TSM/Expanded Bus Service Alternative would have no impacts on waters of the United States.

3. FULL BUILD ALTERNATIVE

The Full Build Alternative includes overcrossings of, or is adjacent to, a number of drainage areas that area "Waters of the United States". The majority of these drainages are concrete-lined and therefore do not contain sensitive biological resources.

Although the study area supports no wetlands that would be directly affected by the Full Build Alternative, this alternative would result in modification of some soft-bottom channelized drainages. Therefore, the project will need to comply with Section 404 of the Clean Water Act to address impacts on "Waters of the United States" with Nationwide Permit 14, Linear Transportation Crossings, anticipated because permanent impacts would not exceed the thresholds for this nationwide permit (0.2 hectare or 0.5 acre), thus resulting in less than significant impacts.

4.4.2 WETLANDS WITHIN THE STUDY AREA

A. PREFERRED ALTERNATIVE/(ENHANCED) REDUCED BUILD ALTERNATIVE

The study area for the (Enhanced) Reduced Build Alternative supports 0.629 hectare (1.55 acres) of wetlands. It is not anticipated that right-of-way required for the proposed widening would impact wetlands within the study area; however, the wetlands could be affected by runoff or erosion from the project area during construction activities. These wetlands are located along the Los Alamitos Channel in the I-405/I-605 Connector segment and adjacent to the SR-22 crossing over Santiago Creek in the SR-22 Mainline segment.

B. OTHER ALTERNATIVES

1. NO BUILD ALTERNATIVE

The No Build Alternative would not include construction other than that which is addressed in other environmental documents; therefore, no additional impacts on wetlands would occur.

2. TSM/EXPANDED BUS SERVICE ALTERNATIVE

The TSM/Expanded Bus Service Alternative would not include any major capital improvements to SR-22. No impacts to wetlands would occur.

3. FULL BUILD ALTERNATIVE

The study area for the Full Build Alternative supports a total of 0.629 hectare (1.55 acres) of wetlands. It is not anticipated that right-of-way required for the proposed widening would impact wetlands within the study area; however, the wetlands could be affected by runoff and erosion from the project area during construction activities. These wetlands are located along Los Alamitos Channel in the I-405/I-605 Connector segment and adjacent to the SR-22 crossing over Santiago Creek in the SR-22 Mainline segment and the SR-22/55 direct HOV connector.

Thresholds of Significance for CEQA:

- Substantial erosion and runoff that may affect wetlands

CEQA Findings:

A. PREFERRED ALTERNATIVE/(ENHANCED) REDUCED BUILD ALTERNATIVE

The study area for the (Enhanced) Reduced Build Alternative supports 0.629 hectare (1.55 acres) of wetlands. It is not anticipated that right-of-way required for the proposed widening would impact wetlands within the study area; however, the wetlands could be affected by runoff or erosion from the project area during construction activities. Implementation of appropriate erosion or runoff controls measures will result in less than significant impacts.

B. OTHER ALTERNATIVES

1. NO BUILD ALTERNATIVE

The No Build Alternative would have no impacts on wetlands.

2. TSM/EXPANDED BUS SERVICE ALTERNATIVE

The TSM/Expanded Bus Service Alternative would have no impacts on wetlands.

3. FULL BUILD ALTERNATIVE

The study area for the Full Build Alternative supports a total of 0.629 hectare (1.55 acres) of wetlands. It is not anticipated that right-of-way required for the proposed widening would impact wetlands within the study area; however, the wetlands could be affected by runoff or erosion from the project area during construction activities. These wetlands are located along Los Alamitos Channel in the I-405/I-605 Connector segment and adjacent to the SR-22 crossing over Santiago Creek in the SR-22 Mainline segment. Implementation of appropriate erosion or runoff control measures will result in less than significant impacts.

4.4.3 MITIGATION

A. PREFERRED ALTERNATIVE/(ENHANCED) REDUCED BUILD ALTERNATIVE

WET-(E)RB-1. Potential impacts to wetlands will be mitigated by the implementation of appropriate erosion or runoff controls, to be designed and constructed as part of the widening of the roadway along the west side of the I-405/I-605 Connector segment, and by the widening of the SR-22 crossing over Santiago Creek in the SR-22 Mainline segment. These controls will include berms or detention basins to channel runoff to a collection area(s). A National Pollutant Discharge Elimination System (NPDES) Permit will be obtained for construction activities and implementation of a Storm Water Pollution Prevention Plan (SWPPP) would eliminate or minimize erosion and runoff.

See also HYD-(E)RB-2 in Section 4.2.4A.

WET-(E)RB-2. Mitigation proposed for construction activities in the Santiago Creek and Santa Ana River includes the removal of exotic/invasive plant species. A field survey conducted by the Department biologist indicates that Santiago Creek and the Santa Ana River are heavily disturbed areas. Access routes and staging areas for construction activities in Santiago Creek and the Santa Ana River will be limited to designated access routes and staging areas to minimize impacts. These measures will be finalized at the design stage.

WET-(E)RB-3. Mitigation efforts at Santiago Creek must be coordinated with other mitigation projects, including, but not limited to those by the City of Orange (i.e., Santiago Creek Bike Trail).

WET-(E)RB-4. Unavoidable permanent and temporary impacts to "Waters of the United States" will be minimized during the design and construction project phases. The feasibility of back filling locations with native material where piers will be removed will be further investigated during design. Access areas for construction activities will be limited to designated routes to minimize impacts. The Section 401, 404, and 1601 permits required by resource agencies may require additional mitigation measures.

B. OTHER ALTERNATIVES

1. NO BUILD ALTERNATIVE

None proposed.

2. TSM/EXPANDED BUS SERVICE ALTERNATIVE

None proposed.

3. FULL BUILD ALTERNATIVE

WET-FB-1. Potential impacts to the wetlands will be mitigated by the implementation of appropriate erosion or runoff controls, to be designed and constructed as part of the widening of the roadway along the west side of the I-405/I-605 Connector segment and by the widening of the SR-22 crossing over Santiago Creek in the SR-22 Mainline segment. These controls will include berms to channel runoff to a collection area(s). A National Pollutant Discharge Elimination System (NPDES) Permit will be obtained for construction activities and implementation of a Storm Water Pollution Prevention Plan (SWPPP) would eliminate or minimize erosion and runoff.

See also HYD-(E)RB-2 in Section 4.2.4A.

WET-FB-2. Mitigation proposed for construction activities in the Santiago Creek and Santa Ana River includes the removal of exotic/invasive plant species. A field survey conducted by the Department biologist indicates that Santiago Creek and the Santa Ana River are heavily disturbed areas. Access routes and staging areas for construction activities in Santiago Creek and the Santa Ana River will be limited to designated access routes and staging areas to minimize impacts. These measures will be finalized at the design stage.

WET-FB-3. Mitigation efforts at Santiago Creek must be coordinated with other mitigation projects, including, but not limited to those by the City of Orange (i.e., Santiago Creek Bike Trail).

WET-FB-4. Unavoidable permanent and temporary impacts to "Waters of the United States" will be minimized during the design and construction project phases. The feasibility of back filling locations with native material where piers will be removed will be further investigated

during design. Access areas for construction activities will be limited to designated routes to minimize impacts. Section 401, 404, and 1601 permits required by resource agencies may require additional mitigation measures.

4.4.4 RESIDUAL IMPACTS AFTER MITIGATION

A. PREFERRED ALTERNATIVE/(ENHANCED) REDUCED BUILD ALTERNATIVE

None.

B. OTHER ALTERNATIVES

1. NO BUILD ALTERNATIVE

None.

2. TSM/EXPANDED BUS SERVICE ALTERNATIVE

None.

3. FULL BUILD ALTERNATIVE

None.

This Page Intentionally Blank